

**ABSTRACT**

A system and method for measuring a parameter of a target in accordance with embodiments of the present invention includes transmitting at least one signal towards a target and receiving at least a portion of the transmitted signal back from the target. The measured parameter is one of distance velocity, or reflectivity. The transmitted signal is of the coherent burst waveform, and upon reception is processed with equivalent time sampling, AGC with minimal, if any, error, and a discrete Fourier transform.